OPERATOR'S MANUAL

RIFLE, 7.62MM SUPERSASS™
CARBINE, 7.62MM SUPERSASS™

READ THIS MANUAL FIRST!

Almost all Operator problems are caused by failure to read and understand the information in this manual. ***It's Important***

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This book provides instructions on the operation and operator maintenance of the ArmaLite® AR-10 SuperSASS™ (**S**emi**A**utomatic **S**niper **S**ystem). Read and understand it carefully before you use the rifle. Your safety, and the safety of those around you, depends on your knowledge of the rifle and on your knowledge of safety rules common to all firearms.

The SuperSASS is a lightweight, gas operated, air cooled, magazine fed semiautomatic rifle produced for a high degree of accuracy and reliability. The rifle's construction features extensive use of aircraft-grade forgings, with no die-cast or extruded parts employed in the receivers. The patented bolt assembly provides higher strength than that found on similar designs.

The SuperSASS is designed to fire all NATO STANAG or high-quality commercial 7.62mm ammunition. It can fire any NATO full metal jacket (FMJ) or open tip match 7.62mm/.308 Winchester ammunition that may be available.

Although the SuperSASS looks very much like an M16 series rifle, it actually employs only a small number of M16 parts because few M16 parts are strong enough for a 7.62mm firearm. The similar design allows the operator to operate and maintain it the same way he operates and maintains the M16 rifle, while employing almost all of the same cleaning tools, cleaning solutions, and lubricants.

SuperSASS with Suppressor broken down in transit chest
(Shown with optional accessories. The basic system is supplied with one 10 and 1 20 round magazine)

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1. SAFETY FIRST! IT'S <u>YOUR</u> RESPONSIBILITY!

ACCIDENT (Ak'si dent) N
1. An unintentional or unexpected happening that is undesirable or unfortunate, esp. one resulting in injury, damage, harm or loss.

** Always keep the muzzle pointed in a safe direction.
* Never point your rifle at anything that you do no intend to shoot.
* Keep your fingers off the trigger and out of the trigger guard until you are aiming at your target and ready to shoot.
* Always keep the safety on the safe position, especially when the rifle is loaded and cocked, until you are ready to fire.
* Always keep and carry your rifle with an empty chamber until you intend to shoot, so that your rifle cannot be fired unintentionally. Firearms should be unloaded when not actually in use…
**** But treat every gun as if it is loaded…AT ALL TIMES.***
* Be sure of your target and backstop before you shoot. Ask yourself what your bullet will hit if it misses or goes through the target.
* Never shoot at hard, flat surfaces or water…bullets can ricochet.
* Wear hearing protection when shooting.
* Discharging firearms in poorly ventilated areas, cleaning firearms, or handling ammunition may result in exposure to lead, a substance known to be associated with birth defects, reproductive harm, and other serious injury. Have adequate ventilation at all times and wash hands after handling.
* Be sure that your barrel is clear of obstructions, including excessive oil and grease, before shooting.
* Do not alter or modify your rifle.
* Do not try to change your rifle's trigger pull, because alterations of trigger pull usually affect sear engagement and might cause accidental firing.
* Store guns and ammunition separately, and beyond children's reach.

IN CASE OF MALFUNCTION, STOP! REVIEW THIS MANUAL TO FIND AND CLEAR THE PROBLEM. IF YOU CANNOT RESOLVE IT, CONTACT ARMALITE AT 1-800-336-0184

IF YOU KNOW NOTHING ELSE ABOUT THE SUPERSASS, YOU MUST KNOW HOW TO <u>UNLOAD IT</u> AND <u>CLEAR IT</u> TO MAKE IT SAFE.

2. UNLOADING AND CLEARING THE SUPERSASS:

Keep the rifle cleared when not in use.

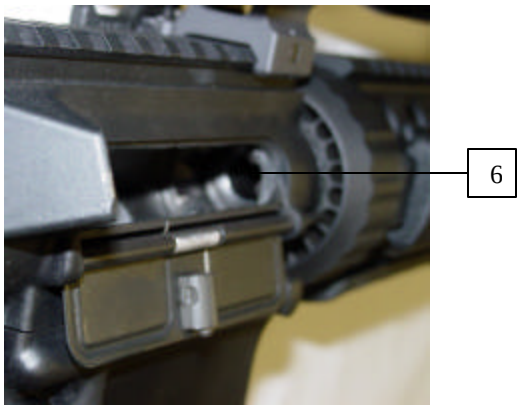
1. **Place safety lever (1) on SAFE.**

NOTE: If the rifle is not cocked, the lever cannot be pointed toward SAFE.

2. **Remove the magazine** (2) by pressing the magazine catch button (3) and pulling the magazine down and out of the receiver.

3. **Extract the cartridge (if any) from the chamber**. To lock the bolt open, pull the charging handle (4) rearward, press the bottom of the bolt catch (5), and allow the bolt to move forward until the bolt catch stops it. Return the charging handle forward.

4. **Look into the receiver and chamber (6) to ensure that these areas contain no ammunition.**



CAUTION!

DO NOT REVERSE THE STEPS IN CLEARING YOUR RIFLE. **IF YOU CLEAR THE CHAMBER BEFORE REMOVING THE MAGAZINE, YOU MAY REMOVE ONE CARTRIDGE THEN IMMEDIATELY CHAMBER ANOTHER FROM THE MAGAZINE! THE RIFLE WILL STILL BE LOADED!**

3. SAFETY CHECK

WARNING

Make sure that the magazine is removed and the chamber is clear.

1. Pull the charging handle (4) to the rear and release it. Place the safety (1) on SAFE. Squeeze the trigger. *The trigger should not fall.*

2. Place the safety (1) on FIRE. Squeeze the trigger (7) and hold the trigger to the rear; *the hammer should fall*. Pull the charging handle (4) to the rear and release it. Release the trigger. *You should hear a click as you release the trigger*. Squeeze again; *the hammer should fall*.

Consult an armorer/gunsmith or ArmaLite if your rifle fails either test.

4. OPERATING PROCEDURES

4.1. LOADING THE AR-10® MAGAZINES

20 Round Magazine: Insert each cartridge by positioning it between the lips at the top of the magazine, with the bullet tip pointing forward, and pressing it straight down until it snaps under the lip of the magazine. (Early AR-10 magazines have a spring-loaded plunger in rear of the follower. To load the second round in such magazines, press the plunger into its hole as you insert the round. Insert the remaining rounds just as you did the first one.) Tap the rear of the magazine to seat the cartridges to the rear to reduce binding.

10 Round Magazine: Insert the first round by the same way you inserted each round in the 20 round magazine. To load the second round, press the plunger at the rear of the follower into its hole as you insert the round. Insert the remaining rounds just as you did the first one.

Load no more than 20 cartridges in the 20 round magazine (or 10 cartridges in the 10 round magazine). If the magazine is loaded tightly and the top cartridge is on the right side of the 20 round magazine (or the left side of the 10 round magazine), you may have loaded 21 cartridges (11 in the 10 round). Loading more than the recommended number of cartridges will overstress the magazine lips and may cause rifle malfunctions.

Take it easy with your magazines. Keep them clean, dry, and don't pound them into the rifle. It looks great in the movies but can damage them. Insert the magazine fully into the rifle then tug downward on it to assure it's securely locked into the rifle.

4.2. LOADING THE SuperSASS AND CHAMBERING THE FIRST ROUND

WARNING! Always point the muzzle in a safe direction.

Assure that the rifle is clear. Pull the charging handle (4) rearward, and lock the bolt to the rear by pressing the bottom of the bolt catch in, then release the charging handle so that the bolt stops on the raised bolt catch. Place the safety on SAFE. Check to see that the chamber is clear and the bore is not blocked.

Push the magazine (2) up into the receiver until the magazine catch (8) engages and holds the magazine.

Pull down on the magazine slightly to make sure that it is locked in place. NEVER pound the magazine into the receiver.

During firing, the bolt carrier group will automatically lock to the rear when the last round in a magazine is fired and the rifle is empty. Reload by pressing the magazine catch to remove the empty magazine, insert a loaded magazine, and press the top of the bolt catch or pull the charging handle to the rear and release it (preferred).

Never “ride” the charging handle forward. Let it slide forward at full speed.

TIGHT MAGAZINE**:** The cartridges in a fully loaded magazine can be packed tight and require firm upward pressure to assure that the magazine catch holds the magazine. It’s always easiest to insert the magazine when the bolt is locked to the rear. In addition, using the charging handle to release the bolt provides more energy for chambering.

4.3. FIRING

Aim at the target. Set the safety to FIRE, grip the rifle firmly, and pull the trigger straight to the rear, increasing the pressure until the shot fires. **Note:** Gripping the rifle loosely when firing can cause the shooter to fire two shots (the second as the trigger strikes the shooter’s trigger finger during counter-recoil.) This is a shooter error, not a rifle malfunction.

Keep the safety on SAFE until you are ready to shoot. Unload and clear your rifle before leaving the firing position.

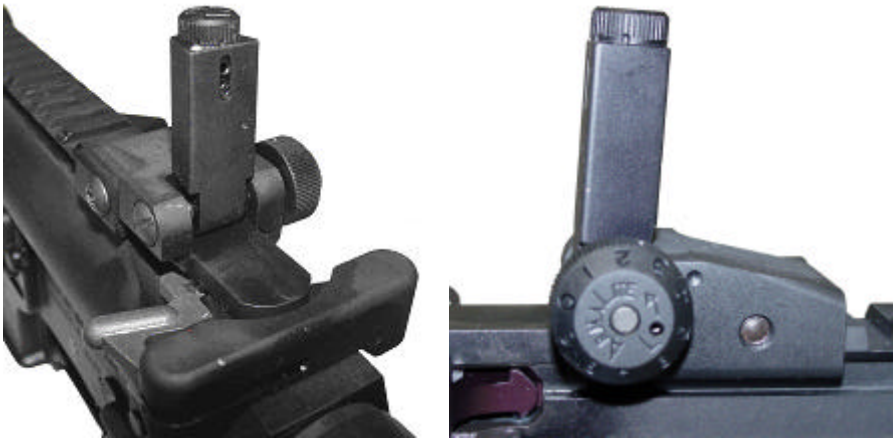
CAUTION!
DO NOT REVERSE THE STEPS IN CLEARING YOUR RIFLE. **IF YOU CLEAR THE CHAMBER BEFORE REMOVING THE MAGAZINE, YOU MAY REMOVE ONE CARTRIDGE THEN IMMEDIATELY CHAMBER ANOTHER FROM THE MAGAZINE! THE RIFLE WILL STILL BE LOADED!**

5. INSTALLING AND USING THE RIFLE ACCESSORIES

5.1. INSTALLING THE BACKUP IRON SIGHTS

To install the backup sights, slip the base over the receiver or gas block, and tighten down until firm by using a 7/32" hex head wrench. Reverse to remove.

ZEROING THE BACKUP SIGHTS



Because every shooter is different, two shooters may have a different zero on the same rifle.

Rotate the elevation knob down (counter clockwise) until the digit on the elevation knob equaling the range in 100s of meters is visible in the rear sight window. (e.g. if you're zeroing at 200 meters, put the 2 in the window).

Carefully aim and fire at the center of the target located at the same number of meters away. Fire at least a three shot group, and locate the center of the group.

If your shot group is not in the center of the target, adjust the rear sight to move the next group. Turning the windage knob clockwise moves the impact RIGHT. Turning the windage knob counter-clockwise moves the impact LEFT. Turning the front sight clockwise (viewed from above) RAISES the impact. Turning the front sight counter-clockwise (viewed from above) LOWERS the impact.

Repeat steps 2 and 3 until the group is centered on the target.

ArmaLite® places numbers on the windage knob so that you can record your zero for future reference.

APPROXIMATE IMPACT SHIFT PER CLICK OF ADJUSTMENT:

Windage (at rear sight): ½" at 100 meters.
Elevation (At front sight): 1 ¼" at 100 meters.

5.2. INSTALLING AND REMOVING THE TELESCOPIC SIGHT

Optional accessories for the SuperSASS include a Leupold Mark 4 telescopic sight fixed to the receiver with A.R.M.S. number 22 lever lock scope rings. It is a superb optic designed to assure clear vision and accurate fire.

Clean the rail interface of the upper receiver to assure that the sight settles into its proper position. Even a small amount of dirt can cause the sights to be off.

Loosen the clamping nut of the sight ring so that the sight can be slipped over the rail in the numbered slot previously used to zero the rifle. Mounting the sight in a different slot may produce a slight shift of bullet impact.

Once the position of the sight on the receiver has been selected, shift the sight forward on the rail interface until the rails on the bottom of the rings stop against the front of the slot on the receiver to assure that the sight cannot shift forward during recoil.

If you purchased the optional Leupold scope, see its enclosed "Riflescope Owner's Handbook" and "Ranging System for the Mil Dot Reticle" booklets for installation, use, and maintenance instructions.

5.3. ADJUSTING THE BUTTSTOCK

The adjustable buttstock is provided to allow the rifle to be adjusted to fit the operator or to accommodate winter clothing, body armor, or different firing positions. On the SuperSASS rifle, both the height of the cheekpiece and the length of the buttstock are easily adjustable by turning the integral knobs.

To extend the collapsible buttstock, pull the locking lever down (1) and pull the stock out until it locks into position. To collapse the buttstock pull the locking lever again and push forward until it locks into position.

5.4. SOUND SUPPRESSOR

The SuperSASS is equipped with an Advanced Armament Corp. (AAC) brand adaptor for its sound suppressor. The rifle is equipped with an active AAC suppressor, or with a dummy AAC suppressor.

WARNING: BEFORE INSTALLING OR REMOVING THE SUPPRESSOR, CONFIRM THAT THE RIFLE IS UNLOADED AND ON SAFE. WITH THE MUZZLE POINTED IN A SAFE DIRECTION REMOVE THE MAGAZINE, LOCK THE BOLT TO THE REAR, THEN INSPECT THE CHAMBER TO VERIFY THAT THE RIFLE IS FULLY UNLOADED.

Refer to the included Advanced Armament Corp. "Operation and Maintenance" manual for specific instructions.

ADJUSTING THE GAS REGULATOR TO SUIT THE SOUND SUPPRESSOR

The pressure of propellant gas built up in sound suppressors increases the cyclic rate of firearms, and can cause them to cycle so quickly that reliability and durability are reduced. The SuperSASS is equipped with a gas regulator with a special suppressor setting that reduces the flow of gas to the mechanism to counter this problem.

Turn the gas regulator on the gas block so that the arrow on the knob points to the letters "SUPP" when firing with the active sound suppressor attached to the rifle.

For firing **without a suppressor, or with the dummy suppressor installed,** turn the knob so that the arrow points to "NORM". DO NOT fire the rifle with a suppressor when the regulator is set to the "NORM" setting. The rifle will function too fast, and is subject to unreliable operation and excessive wear.

If the gas regulator is hard to turn with finger pressure alone, or is hot from firing, the rim of a **fired** cartridge case may be used as a tool.

WARNING: DO NOT USE A LIVE CARTRIDGE TO TRY TO TURN A HOT GAS REGULATOR KNOB. THE HEAT COULD DETONATE THE PRIMER

To properly maintain your SuperSASS gas regulator system, there are a few steps that must be performed. If you plan on firing the SuperSASS rifle with the suppressor on the rifle, the gas regulator MUST be set to the SUPP position. If the suppressor is removed, the gas regulator must be in the NORM position.
CAUTION: Firing the SuperSASS wieh the gas regulator in the NORM position while the suppressor is in place could cause damage to your rifle. If the SuperSASS is fired mainly with a suppressor, the gas regulator should be cleaned every hundred rounds. This is done by removing the suppressor, placing the regulator in the NORM position, and firing a single twenty round magazine through the rifle to ensure the NORM position gas port remains open. Prolonged firing in either the suppressed or unsuppressed mode without cleaning may cause the gas regulator to become frozen or difficult to move. During the cleaning of the rifle, a small amount of oil or penetrate into the back of the regulator, where the gas tube cylinder meets the gas block, will help the regulator to move properly.

ZERO THE RIFLE WITH THE SUPPRESSOR.

The normal disruption of muzzle gases and the added weight of the suppressor on the barrel will normally shift the zero of a rifle. This shift may vary with different cartridges. Establish both the suppressed and unsuppressed zero of the rifle and use them as appropriate.

PROTECT THE RIFLE FROM CONDENSATION

The gasses generated during firing contain a surprising amount of water vapor. This water vapor can condense in the suppressor (especially a cool suppressor) and travel down into the rifle bore if the rifle is stored pointing up. Until all possible moisture is dried out, store the rifle with the muzzle down to prevent water from traveling through the bore and into the action.

REMOVING THE SOUND SUPPRESSOR

CAUTION! THE SOUND SUPPRESSOR BECOMES VERY HOT DURING USE. WAIT FOR THE SUPPRESSOR TO FULLY COOL BEFORE ATTEMPTING TO REMOVE IT.

Unload the rifle and keep the muzzle pointed in a safe direction.

5.5. USING THE RIFLE SLING

The sling is not simply a strap used to carry the rifle. More importantly, a well-designed sling serves to improve shooter accuracy by stabilizing the rifle during firing. It is an important accessory that is often under-used.

The SuperSASS is equipped with the simple but sophisticated M1-type nylon sling that easily serves as a carrying sling and as a precision shooting sling. It is extremely fast, simple, and flexible, but few shooters know how to use it properly.

"Parade Position". In the parade position, the sling serves to carry the rifle. It is easily and quickly loosened and adjusted to a length suitable to the needs of the shooter. The M1 sling is attached to two quick-detachable sling swivels.

To adjust the Parade Sling, grasp the end tab of the sling and pull it against the latching mechanism to unlock the sling,

Next, tighten or loosen the sling as required, then lock it into the desired length by pushing the lock closed.

Precision Shooting Sling. The sling may be quickly disassembled and reassembled into a configuration that provides good support. It is quickly adjustable for different firing positions.

To use the Precision Shooting Sling, detach the lower sling swivel from the butt.

Create a loop of sling material by pulling the strap through the sling's lower keeper.

Rotate the loop ½ turn away from the body (clockwise looking down if shooting right handed, and counterclockwise if left handed) to prevent an uncomfortable edge of sling from pressing against the supporting arm. Slip the support arm through the loop, wrap it around the sling and grasp the rifle.

Assume the intended firing position and adjust the sling to proper tension by pulling on the loose end of the sling, pulling it away from the supporting arm to unlock it, and draw the end to the position that provides proper support to the rifle. Press the lock tab of the

lock in to secure the sling at the proper position. Some experimentation will prove useful.

Experienced snipers and target shooters have a trick for making the sling faster and easier to use. The sling may be disassembled and rearranged for easy access to the loose end of the sling for fast adjustment. To rearrange the sling, unlock the sling and remove the lock assembly from the sling completely.

Reverse the lock so that it faces *away* from the rifle, and with the lock's latch pointed to the buttstock. Slip it back over the strap and front sling swivel and install it so that the loose end of the strap falls away from the rifle. Attach the swivel to the rifle.

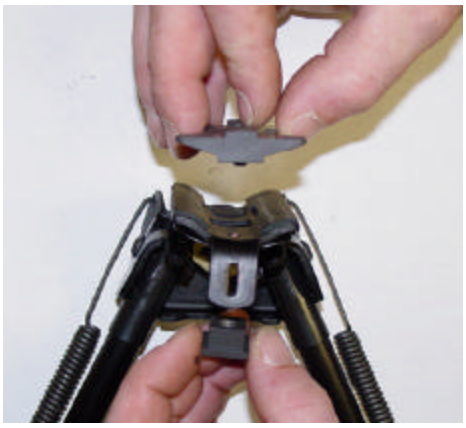
5.6. INSTALLING THE BIPOD.

The bipod enhances accuracy by providing support to the rifle. If you purchased the optional Harris Bipod, see the included Harris instruction sheets for installation and use instructions.

1. Remove the brass ring at the rear of the bipod. It may be necessary to cut the ring.

2. Remove the sling swivel stud adaptor from the bipod.

3. Disassemble the bipod adaptor.



4. Attach the bottom plate to the bipod using the square stud, and the bevel bottom plate. The small square will fit into the hole left open by the sling swivel attachment.

5. Attach the top plate to the bipod and tighten the screws. The bipod is now ready for installation to the rifle.

Open the lock of the bipod adaptor. Hook the fixed side of the adaptor over the bottom rail, with the crossbar of the adaptor aligned with a slot in the rail. Swing the locking side of the adaptor over the rail and push the lock lever parallel to the rail to lock the assembly in place.

6. MAINTENANCE

6.1. FIELD STRIPPING

CLEAR THE RIFLE

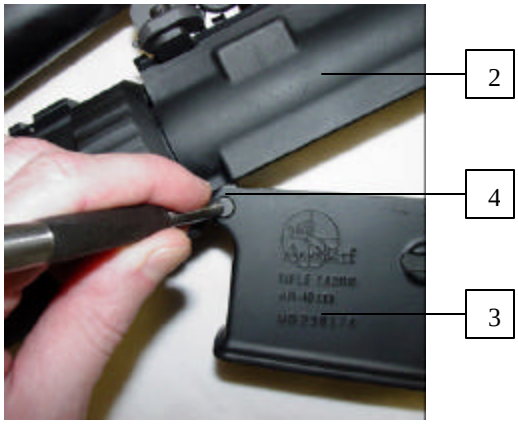
IMPORTANT: Put the safety on SAFE. Remove the magazine, THEN pull back the charging handle (1) and check the chamber.

SLING
Remove the sling.

UPPER AND LOWER RECEIVERS

1. Push the takedown pin (1) as far as it will go. **Caution:** Excess force can severely damage the receiver. Take it easy!

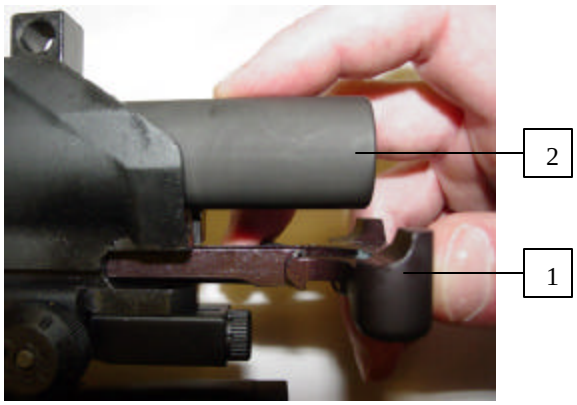
2. Pivot the upper receiver (2) from the lower receiver (3).
3. Push the receiver pivot pin (4) as far as it will go. **Caution: Just like the M16, excess force on either the front (takedown) or rear (pivot) pins could drive the pin and its retainer completely through the other side of the receiver!**



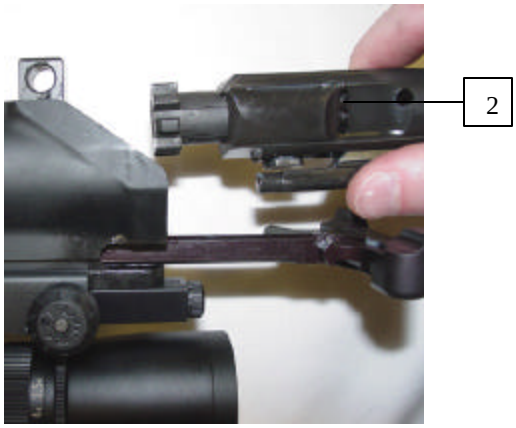
4. Separate the upper and lower receivers.

CHARGING HANDLE AND BOLT CARRIER ASSEMBLY

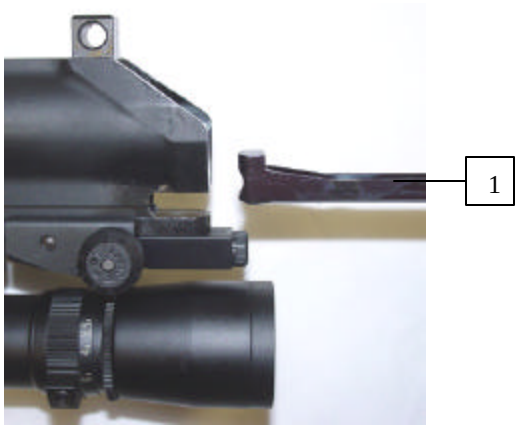
1. Pull back the charging handle (1) and bolt carrier assembly (2).



2. Remove the bolt carrier assembly (2).

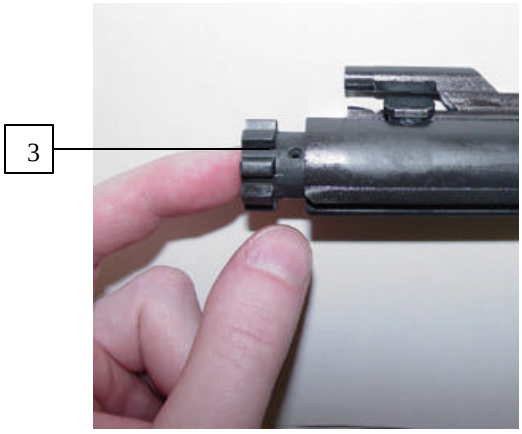


3. Pull the charging handle (1) back and down to remove it.

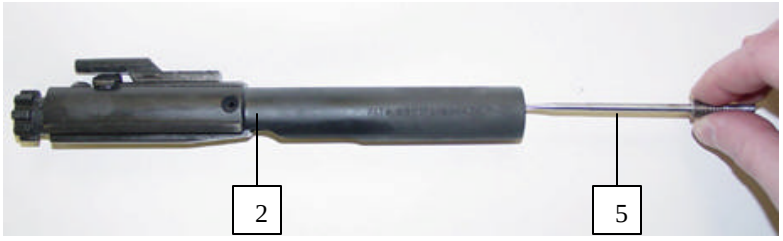


4. Move the bolt assembly (3) forward to the unlocked position. The firing pin retaining pin (4)is retained in the carrier group by friction. Press it out of the carrier to remove the firing pin. Do not open or close the split end of the firing pin retaining pin.

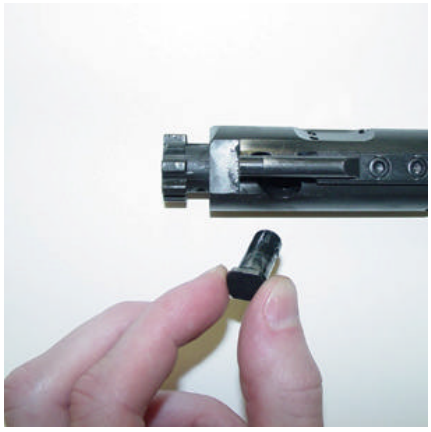
5. Push in on the bolt assembly (3) to put it in the locked position.



6. Catch the firing pin (5) as it drops out of the rear of the bolt carrier assembly (2). DO NOT REMOVE THE FIRING PIN SPRING (IF INSTALLED) FROM THE FIRING PIN.



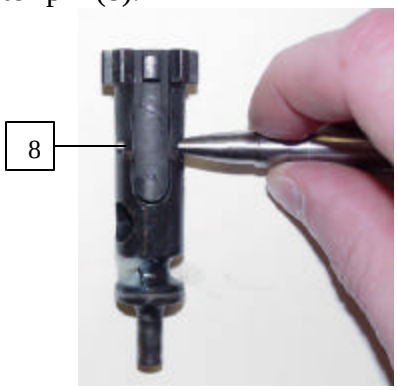
7. Lift the Cam Pin straight out.



8. Remove the bolt assembly (3) from the bolt carrier assembly.

9. Press the rear of the extractor (7) to check that the spring works.

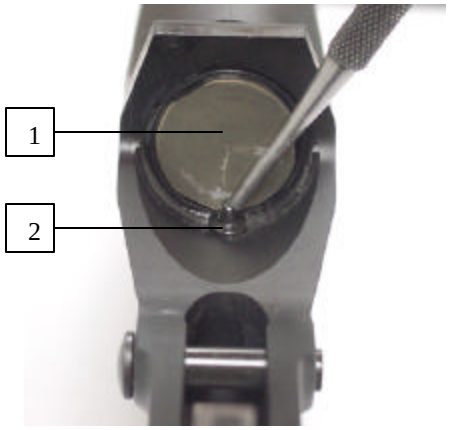
10. Remove the extractor pin (8).



11. Remove the extractor and spring assembly. Note: Do not remove the spring assembly, its insert, or the O-ring from the extractor. Assure that the inner extractor spring isn't lost.

LOWER RECEIVER ASSEMBLY

1. Cock the hammer with your thumb. Push in the buffer (1) and depress the retainer (2) to release the buffer.



1. Remove the buffer (1) and the buffer spring (3).

DISASSEMBLING THE MAGAZINE

Use the tip of a cartridge or another suitable tool to very slightly pry the rear of the floorplate up so that it can be pulled off the magazine.

Remove the spring and attached follower from the magazine shell. The spring will exit the shell easily, but the follower must be twisted and withdrawn, rear first. Do not remove the spring from the follower.

NO FURTHER DISASSEMBLY IS REQUIRED.

6.2 CLEANING AND INSPECTION

Proper cleaning and lubrication is essential to the reliable function, corrosion resistance, and accuracy of the SuperSASS.

CLEANING SOLVENTS AND LUBRICANTS

Lubricate generously with CLP (Cleaner, Lubricant, and Preservative) Mil-L-

High quality cleaning solvent like Hoppes no. 9 removes metal fouling from the bore excellently.

Under NO conditions should any lubricant containing graphite be used with your rifle. Graphite can encourage rapid corrosion to the aircraft-grade aluminum used in your rifle.

In addition to cleaning solvents and lubricants, the basic cleaning equipment you will need includes a cleaning rod, brass bore brush, chamber brush, toothbrush, patches, pipe cleaners, and the most important item: a lint-free cloth. ArmaLite® recommends a pull-through cleaning cable for efficient, breech-to-muzzle cleaning.

UPPER RECEIVER AND BARREL ASSEMBLY

During firing, the suppressor stores propellant gasses and slows their exit from the system. Much of that propellant gas travels back down the barrel and into the rifle action. The SuperSASS will therefore require more frequent cleaning when fired with the suppressor installed.

NOTE

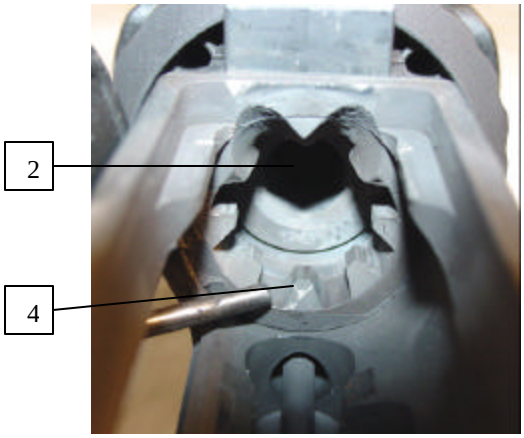
Don't reverse the direction of the bore brush while it's in the bore.

1. Use CLP to clean the bore and chamber, the gas tube, the upper receiver and barrel assembly, locking lugs and all areas of powder fouling, corrosion, dirt or dust.

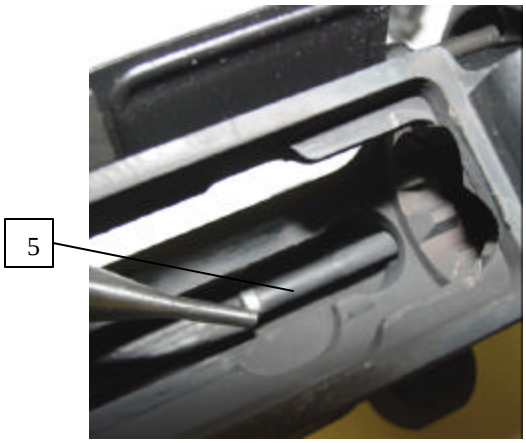
WARNING: Lead may be present in the fouling of a dirty rifle. Avoid contact with it, and clean hands afterward to avoid ingesting lead.

2. Use a cleaning rod, bore brush and cleaning solvent. Run the rod (1) through the chamber (2) and flash suppressor (if applicable) several times.

3. Install the chamber brush on the cleaning rod (1), dip it in cleaning solvent, and insert it into the chamber (2) and locking lugs (4). Clean by pushing and twisting the cleaning rod.



4. Use a worn out bore brush to clean the outside surface of the protruding gas tube (5) (get the sides and bottom from the bottom of the upper receiver). This procedure ruins the brush.



NOTE

Gas tubes will discolor from heat. Do not try to remove this discoloration.

Do not try to clean the inside of the gas tube. It is not needed with good quality propellant, or effective with bad propellant.

Do not bend the gas tube; if the tube is bent it will slow or block forward movement of the carrier group.

4. Take the bore brush off the rod (1) and install a swab holder and a swab. Apply cleaning solvent to the swab, then run it through the chamber (2) and out the flash suppressor (if applicable) (3). To remove carbon build up, let the solvent sit, then wipe clean. A bore brush may be used with care to remove heavy carbon buildup. Wipe the bore dry by running clean swabs all the way through from the chamber and out the muzzle. REMEMBER, do not change directions in the bore.

Inspect the barrel (1), gas tube (2), and hand guards for cracks, bends, or breaks. Be sure the barrel has no obstructions.

6. Lightly lubricate the bore and chamber and the outer surfaces of the rifle.

7. Lubricate the bore with a lubricated swab, running the rod from the receiver to the muzzle.

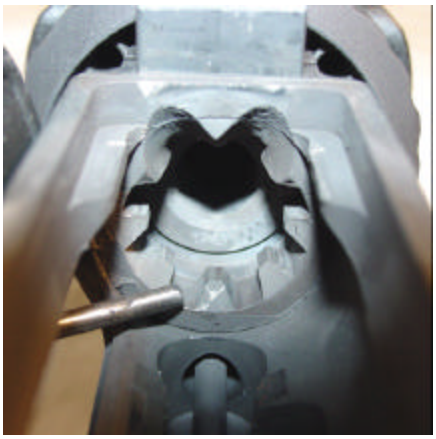
8. Cleaning the locking lugs.

The hidden surfaces of the locking lugs of the barrel must be cleaned and protected. Place a chamber cleaning brush on the chamber cleaning tool. Dampen the brush with CLP and screw it into the chamber with a clockwise motion until the wide diameter steel brushes enter the barrel extension. Rotate the brush three times and, while continuing to rotate clockwise, pull it from the chamber.

If no brush is available, place two cleaning patches on a cleaning rod with one end of the patches protruding only slightly, and the other end protruding approximately two inches. Wet the patches well with CLP and wash the hidden areas of the barrel extension by placing the patches in close contact and rotating the rod.

Alternatively, place a patch on the steel bristles of a very worn and unserviceable chamber brush and use it to press the patch against the hidden surfaces.

9. Lubricate the locking lugs.



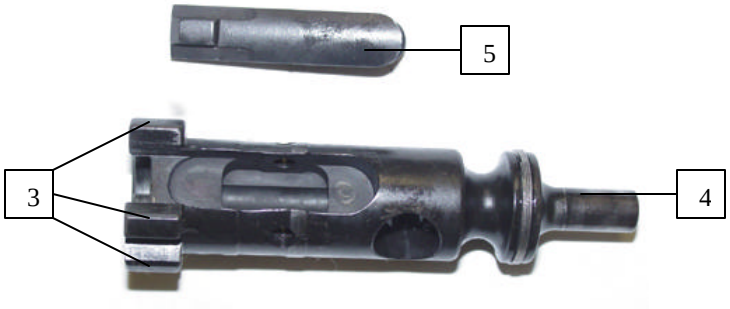
10. Drip lubricant on the front sight detent, then depress the detent to work the lubricant in.

CHARGING HANDLE AND BOLT CARRIER ASSEMBLY

1. Clean all parts and outer surfaces of the bolt carrier assembly with a swab saturated with cleaning solvent.

2. Clean the bolt carrier key (2) with a worn bore brush dipped in solvent and dry with a pipe cleaner.

3. Remove carbon deposits and dirt from the locking lugs (3) with a bore brush dipped in solvent.



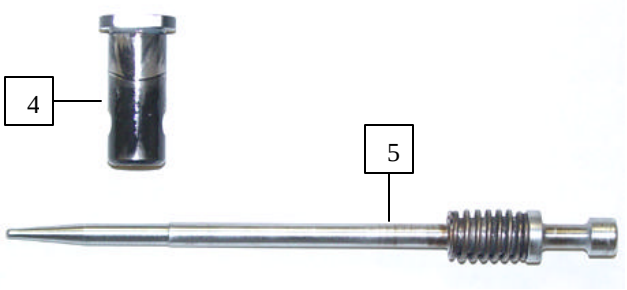
4. Clean the areas behind the bolt rings (4) and under the lip if the extractor (5).

5. Press the ejector in repeatedly to remove accumulated brass shavings from the ejector hole and assure the ejector moves freely. Lubricate it generously.

1. Inspect the charging handle (1) for cracks, bends or breaks.
2. Inspect the bolt assembly (2) for cracks or fractures, especially in the cam pin hole area.

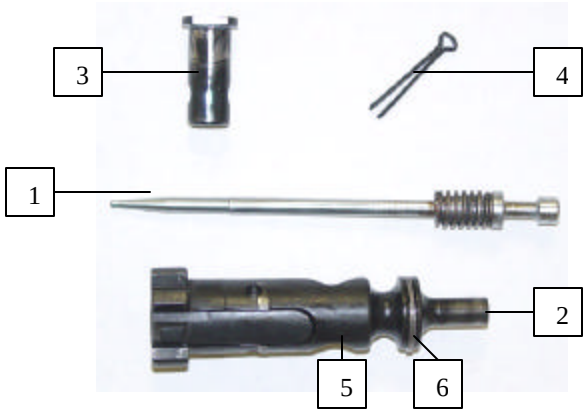
DO NOT interchange bolts between rifles.

3. Inspect the firing pin retaining pin (3) for bends, breaks, or dents.



4. Inspect the bolt cam pin (4) for cracks or chips. Assure that the firing pin spring is installed with the tight end in the firing pin's groove.

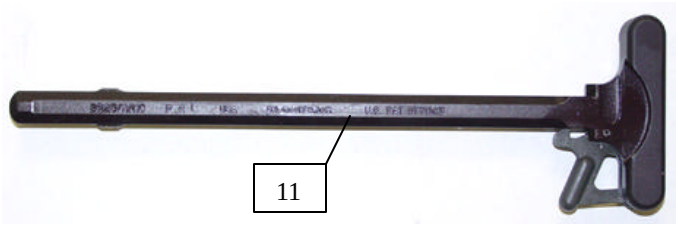
5. Inspect the firing pin (5) for bends, cracks, or a sharp, chipped, or blunted tip.



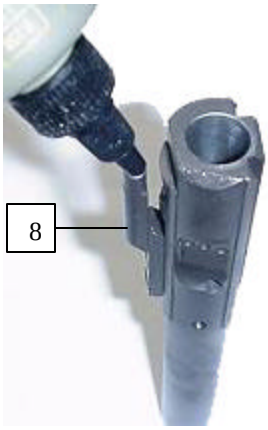
1. Lightly lubricate the firing pin (1) and firing pin recess (2) in the bolt assembly.
2. Generously lubricate the outside of the bolt cam pin (3) and the firing pin retaining pin (4). Make certain to lubricate the bolt cam pin hole (5), bolt rings (6), and outside of the bolt.

3. Lightly lubricate the inner and outer surfaces of the bolt carrier (8). Generously lubricate the slide (9) and the cam pin area (10) of the bolt carrier.

4. Lightly lubricate the charging handle (11).



11. Dry the key of the bolt carrier assembly (8) with a pipe cleaner. Place one drop of lubricant inside the key.



Note: Carbon in the groove at the bottom of the gas cylinder in the carrier cannot accumulate enough to become a problem. Efforts to remove it cause more damage than leaving it. Avoid the instinct to over clean your rifle.

LOWER RECEIVER ASSEMBLY

CAUTION

Do not use a wire brush or any type of abrasive material to clean aluminum surfaces

1. Wipe dirt from the trigger with a swab.
2. Use a swab and cleaning brush to clean powder fowling, corrosion, and dirt from the lower receiver. (2).

3. Use a pipe cleaner to clean the buttstock screw vent hole.

12. Clean the buffer (4), recoil spring (5), and inside lower receiver with a swab dipped in solvent.

5. Examine the lower receiver assembly for a broken or bent trigger, buttstock, corroded or deformed lower receiver, cracked or damaged grip, and bent or damaged safety. Look at the inside parts for cracks, dents, or breaks.

6. Lightly lubricate the recoil spring (2) and buffer (3).

7. Generously lubricate the takedown (4) and pivot pins (5) and the inside parts of the lower receiver assembly.

MAGAZINE

The magazine is one of the most important parts of a rifle… and one of the most neglected. Failure to keep the magazine cleaned and properly lubricated will result in early and frequent malfunctions. It should be cleaned and lubricated whenever contaminated inside with water, sand, or dirt.

Clean the follower, shell, spring, and floorplate, and lubricate them with CLP.

The magazine is ready for reassembly.

MAINTAINING THE CAMOUFLAGE LAYER (IF PRESENT). Clean the baked on finish of the SuperSASS using a cloth moistened with mild soapy water. Wipe with a clean camp rag. CLP may be used to remove stubborn powder stains. Use CLP to lubricate and protect any steel surfaces that have been cleaned.

The standard hard coat anodize surface layer is intended as a base for any spray-on paints suitable to the operational area in which the SuperSASS System is being employed.

SOUND SUPPRESSOR

CLEANING

Clean the outside of the suppressor with a CLP dampened cloth. Copper removing bore cleaner such as "Hoppe's No. 9" may be used to remove copper fouling from the suppressor.

Brush the contact areas of the suppressor and compensator/adapter contact areas to remove carbon and other fouling. Fouling will render re-attachment of the suppressor difficult.

Do not use abrasives to clean the bearing surfaces. Surface damage reduces accuracy when firing with the suppressor attached and increases powder fouling.

Note: Never mix two or more bore cleaning solvents. Some combinations of solvents produce acids which may damage rifle or suppressor metals.

Do not allow solvent to flow into the suppressor body. Keep the suppressor "muzzle up" when brushing the inside or when soaking the compensator/adapter contact area.

NOTE: The suppressor is a precision instrument having a tight fit between the bearing surfaces of the compensator/adaptor. To assure a proper fit, the compensator/adaptor must be kept free of dirt or carbon fouling.

Brush and/or scrape the carbon and copper residue from the suppressor mounting surfaces and the compensator/adaptor. Take care to assure that carbon doesn't fall into the rifle bore or into the suppressor body.

REASSEMBLY

LOWER RECEIVER ASSEMBLY

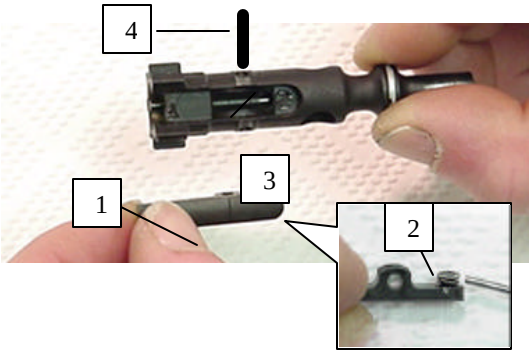
Insert buffer spring (1) and buffer (2).

CHARGING HANDLE AND BOLT CARRIER

NOTE

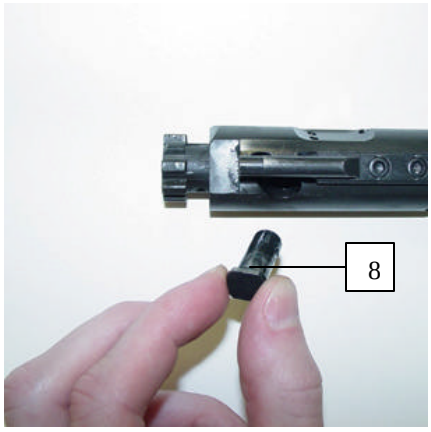
The extractor has a silicone insert (2) in the spring. Don't lose it.

1. If the spring comes loose, seat the large end of the spring in the extractor. Assure the reinforcement ring is around the spring.
2. Insert the extractor (1) with spring assembly into bolt.
3. Push extractor until the holes on the extractor (3) and bolt are aligned and insert the extractor pin (4).



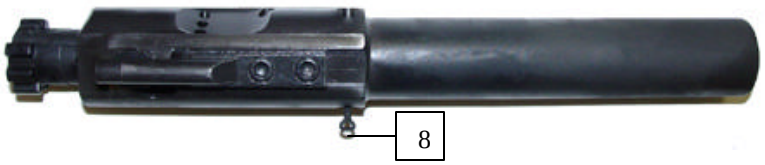
4. Slide the bolt assembly (6) into the bolt carrier (7) ***only far enough to insert the cam pin***.

5. Insert the bolt cam pin (8).



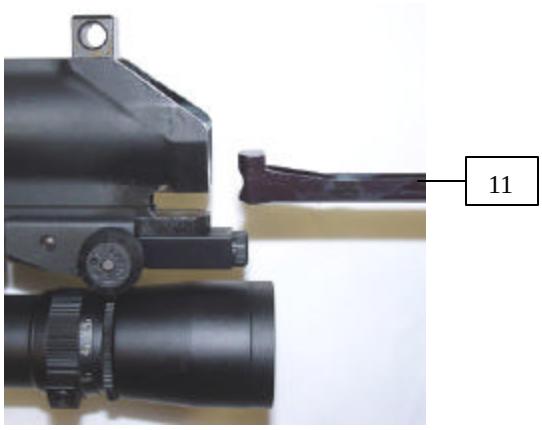
13. Drop the firing pin (9) into its opening. (AR-10: verify that the tight end of the firing pin spring engages the groove on the firing pin.)

7. Pull the bolt assembly forward and insert the firing pin retaining pin (10) in the area behind the large flange of the firing pin (9). Push the AR-10 firing pin to verify the spring returns.

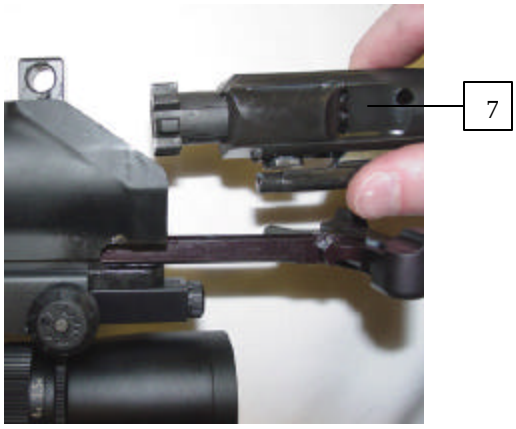


8. Turn the bolt carrier assembly up and try to shake out the firing pin. The firing pin must not fall out.

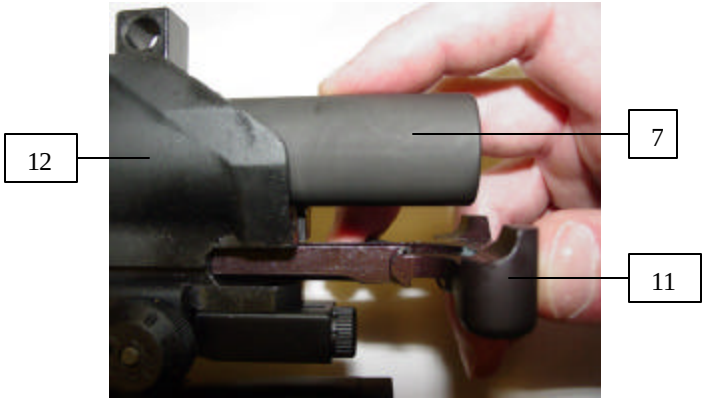
9. Place the charging handle into the upper receiver and engage the handle's lugs with the track in the receiver, then push the charging handle (11) part way into the upper receiver.



10. Slide the bolt carrier assembly (7), bolt extended, into the upper receiver.



11. Push the charging handle assembly (11) and bolt carrier assembly (7) together into the upper receiver (12).

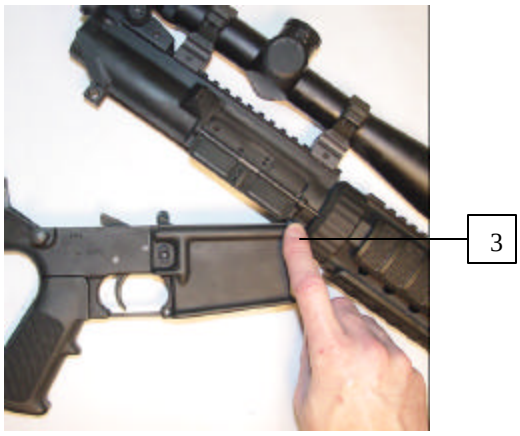


UPPER AND LOWER RECEIVERS

NOTE

The hammer must be in cocked position to join receivers.

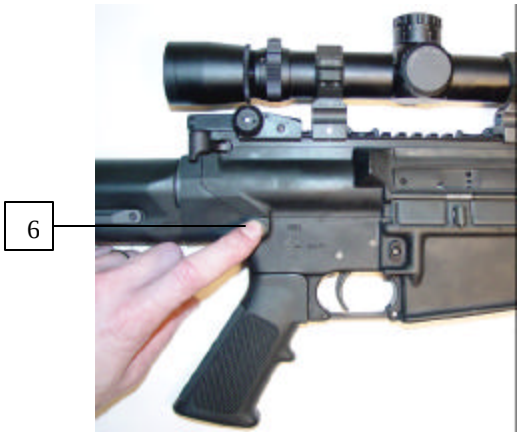
1. Join the upper and lower receivers.
2. Align the pivot pin holes with the pivot pin and push the pivot pin (3) in.



CAUTION

Close the ejection port cover (5) before the receivers are joined to prevent damage to the cover.

3. Close the upper and lower receivers. Push in the takedown pin (6).



NOTE

Normal forging and manufacturing variations may result in slight overhang or play. This will not affect function or accuracy.

SLING

Attach the sling.

REASSEMBLING THE MAGAZINE.

Insert the follower and spring assembly into the magazine shell. Insert the right front corner of the follower into the magazine and roll the rear of the follower into the shell. This step will take some practice.

With the follower and spring held in the magazine shell, the floorplate is easily slipped under the tabs at the bottom of the magazine.

TROUBLE SHOOTING

PROBLEM	CHECK FOR	WHAT TO DO
WON'T FIRE	Selector lever on SAFE.	Put it on FIRE.
	Improper assembly of firing pin.	Assembly correctly. NOTE: the pin. retaining pin goes in back or large shoulder of firing pin.
	Oil or fouling in bolt.	Clean with pipe cleaner.
	Defective ammunition.	Remove and discard.
	Too much carbon on firing pin Or firing pin recess.	Clean.
	Bolt not fully locked.	Extract cartridge, clean area
BOLT WON'T LOCK		
	Dirty bolt.	Clean.
	Burred or broken bolt.	Contact ArmaLite.
	Ejector stuck.	Contact ArmaLite.
WON'T EXTRACT	Broken extractor spring.	Replace.
	Inner spring or reinforcement ring Missing from extractor spring.	Replace.
	Dirty, corroded, or reloaded ammunition.	Remove and discard.
	Carbon in chamber.	Clean chamber.
	Frozen or worn extractor.	Remove and clean.
	Restricted buffer assembly.	Remove and clean.
	Restricted movement of bolt carrier assembly.	Remove, clean and lubricate.

TROUBLESHOOTING (CONTINUED)

PROBLEM	CHECK FOR	WHAT TO DO
WON'T EXTRACT	Clogged gas tube.	Replace.
	Short recoil.	See below.
	Gas regulator incorrectly set.	Set to NORM if not using suppressor.
WON'T FEED	Dirty, corroded, or reloaded ammunition.	Remove and discard.
	Dirty or defective magazine.	Clean and lubricate or replace.
	Too many rounds in magazine.	Remove excess rounds.
	Buffer assembly is restricted.	Take out and clean buffer and spring.
	Magazine not fully seated.	Adjust magazine catch: Press button on right side, and turn catch on left. Clockwise tightens.
	Short recoil.	See below.
	Overly fast operation.	Gas regulator set to NORM when using suppressor. Set to SUPP.
DOUBLE FEED	Defective magazine.	Replace.
WON'T CHAMBER	Dirty corroded of defective ammunition.	Remove and discard.
	Ejector stuck.	Clean and oil.
	Carbon in carrier key or chamber.	Clean.
WON'T LOCK	Dirt, corrosion, or carbon buildup in barrel locking lugs.	Clean lugs.

TROUBLESHOOTING (CONTINUED)

PROBLEM	CHECK FOR	WHAT TO DO
SHORT RECOIL	Rings worn or too loose.	Replace
	Carbon or dirt in carrier key or on outside of gas tube.	Clean.
	Q-tip/pipe cleaner stuck inside carrier key.	Remove.
	Weak or reloaded ammunition.	Replace with factory fresh ammunition,
SHORT RECOIL	Weak or reloaded ammunition	Replace with factory fresh ammunition. Quality match ammo is recommended.
	Loss of gas power.	Check entire gas path, especially carrier key.
	Dirty rifle.	Clean
	Improper lubrication.	Lubricate generously.
	Incorrect gas regulator setting.	Set regulator to "NORM" when firing without a suppressor, or when firing with the dummy suppressor.
BOLT FAILS TO LOCK OPEN AFTER LAST ROUND	Defective magazine.	Replace.
	Dirty or corroded bolt catch.	Clean or replace.
SELECTOR LEVER BINDS	Needs oil.	Lubricate.
	Dirt or sand under trigger.	Clean.

TROUBLESHOOTING (CONTINUED)

PROBLEM	CHECK FOR	WHAT TO DO
BOLT CARRIER "HUNG UP"	Round jammed between bolt and charging handle and/or double feed.	1. Remove magazine. 2. Push in on bottom of bolt catch. 3. Bang rifle butt on ground, bolt should shift to rear. 4. While bolt is held to rear, round should fall out through magazine well. NOTE: If this procedure fails, use a cleaning rod to push bolt fully to the rear through the ejection port.

WARNING: KEEP CLEAR OF THE MUZZLE!

8. OPTIONAL ACCESSORIES

Optional accessories available from ArmaLite at the time of this writing include:

AR-10 Flip-Up Front Sight
AR-10 Flip-Up Rear Sight
Leupold Mark 4, 3.5-10x49mm Telescopic Sight
A.R.M.S. #22 Throw Lever Rings
A.R.M.S. Throw Lever Adaptor
Harris S-LM Bipod
Starlight Case for Rifle
Starlight Case for Carbine
Cleaning Kit

These accessories can be purchased through your ArmaLite dealer, or directly from ArmaLite by calling 1-800-336-0184.

9. MISCELLANEOUS TECHNICAL NOTES

ArmaLite publishes a large number of Technical Notes that provide a huge amount of information about our rifles and similar models. This information is available at no charge in the Technical Notes section of the Library at ArmaLite.com. The following extracts may be particularly relevant to your new rifle:

FIRING PIN RETAINING PIN: Do not pound or force the firing pin retaining pin into position. To check for proper assembly of the AR-10 bolt carrier assembly, hold it with the bolt up to verify that the firing pin doesn't fall out. Push forward on the rear of the firing pin and make sure that it is pushed back by the firing pin spring. Replace the retaining pin if it is damaged.

MATCH TRIGGER ADJUSTMENTS: ArmaLite's National Match trigger assembly isn't user adjustable. For safety reasons, it is intentionally built with a small amount of creep in the second stage. As it breaks in with use (200 to 500 rounds) the creep tends to decrease to an acceptable level. If excess creep remains, the trigger can be tuned by a gunsmith using techniques similar to those used with the Ml/Ml4 trigger system. ArmaLite technicians will fine-tune the triggers for a nominal shop fee, plus shipping.

REMOVING THE AR-10 and M15A4(T) TUBULAR HANDGUARD: It should seldom be necessary to remove the tubular handguard of the (T). If it must be removed, a vise with protected jaws is useful. Begin by holding the rifle by the fiberglass tube. Use a strap wrench to grasp the lock ring at the front of the receiver. Loosen the ring by rotating it counterclockwise (as viewed from the butt), and pull forward on the handguard at the same time. Wrapping the lock ring with double-sided tape or duct tape, or wiggling the handguard slightly as it loosens may help. Reverse the procedure to install. WARNING: EXCESSIVE TIGHTENING OF THE LOCK RING WITH A STRAP WRENCH CAN LOOSEN THE BARREL NUT OR DEFORM THE GAS TUBE.

APPEARANCE:

A small amount of powder residue normally seeps from under the front sight/gas block and the recoil check. This is normal, but cannot be seen on phosphated barrels. It can be seen on stainless steel barrels but presents no problem.

10. SERVICE

To obtain factory service on your AR-10 SuperSASS, or to purchase accessories, please contact us at 1-800-336-0184.